the broken-off spikelet, and overlooked the two glumes remaining attached to the pedicel. His description does very well describe such part of the spikelet, and all of Mrs. Chase's troubles will disappear should she so apply it.

In his generic description of *Dilepyrum*, Michaux describes the valves (i. e. lemma and palet) as "subulato-linearibus, carinatis." This applies to his first species *D. aristosum*, but one would hesitate to apply it to his second species, which has been identified as *Muhlenbergia Schreberi*. The first species should therefore be regarded as the type of the genus *Dilepyrum*.

It seems to me that Mrs. Chase's kind attempt "to correct Mr. Farwell's misconception" is a case of misapplied helpfulness, and that Mr. Farwell is entitled to the credit of a good piece of investigation.

MAPLEWOOD, NEW JERSEY.

SIXTH REPORT OF THE COMMITTEE ON FLORAL AREAS

IT is the present intention of the committee to prepare preliminary lists of all families of New England plants of which such lists have not previously been made and to accompany them, as heretofore, with geographic notes. In pursuance of this plan, the families between *Pinaceae* and *Gramineae* in the Manual order are here treated, with the exception of *Sparganiaceae*, *Najadaceae*, and *Juncaginaceae*, lists of which by Prof. Fernald have already been published (RHODORA ix. 86; x. 168).

To these previous lists the committee has one addendum. Bennett's *Plants of Rhode Island* records *Triglochin palustris* from Newport. Bennett's work was not very critical and many errors crept into it; his record might therefore be disregarded except for the fact that there is in the Tweedy herbarium at Yale University a specimen of *T. palustris* labelled "Newport, R. I., salt marsh. Legit F. Tweedy, July, 1877." The species is not otherwise known on the Atlantic coast south of York Co., Maine, and neither the committee nor Mr. S. N. F. Sanford, who has utilized his special knowledge of the local flora and of local botanical effort in the past in running down every possible clue, has been able to discover any further evidence of its occurrence in Rhode Island. Nevertheless, there

seems to be no reason to doubt the authenticity of Tweedy's label; the Newport station, now very likely extinct, may be regarded as a southern outpost of the species, comparable to the detached outlying stations of *Puccinellia paupercula*, var. *alaskana* in Massachusetts and Connecticut.

The committee is under constant obligation to individuals and institutions for information and the privilege of examining specimens. Space hardly permits detailed acknowledgement; but to all who have aided us our hearty thanks are extended.

PRELIMINARY LISTS OF NEW ENGLAND PLANTS— XXXI.

The sign + indicates that an herbarium specimen has been seen; the sign — that a reliable printed record has been found.

	MAINE	N. H.	VT.	MASS.	R. I.	CONN.
TYPHACEAE						
Typha angustifolia L.	+	+	+	+	+	+
Typha latifolia L.	+	+	+	+	+	+
Typha latifolia L. f. ambigua (Sonder) Holmb.	+	+	+	+		
ALISMACEAE						
Alisma Plantago-aquatica L.	+	+	+	+		
Alisma Plantago-aquatica L. var. parviflorum (Pursh) Farwell	+	+	+	+	+	+
Echinodorus tenellus (Mart.) Buchenau				+		
Lophotocarpus calycinus (Engelm.) J. G. Sm., var. spongiosus (Engelm.) Fassett	+	+		+		+
Sagittaria cuneata Sheld.	+	+	+	+		+
Sagittaria Engelmanniana J. G. Sm.				+	+	+
Sagittaria graminea Michx.	+	+	+	+	+	+
Sagittaria heterophylla Pursh			+	+		+
Sagittaria heterophylla Pursh f. elliptica (Engelm.) Blake				+		
Sagittaria heterophylla Pursh f. fluitans (Engelm.) Blake			+	−		
Sagittaria heterophylla Pursh f. rigida (Pursh) Blake	+	+	+	+	−	+
Sagittaria latifolia Willd.	+	+	+	+	+	+
Sagittaria latifolia Willd. f. diversifolia (Engelm.) Robinson	+	+		+		+
Sagittaria latifolia Willd. f. gracilis (Pursh) Robinson	+	+	+	+	+	+
Sagittaria latifolia Willd. f. hastata (Pursh) Robinson	+	+	+	+	+	+
Sagittaria latifolia Willd. f. obtusa (Muhl.) Robinson	+	+	−	+	+	+
Sagittaria subulata (L.) Buchenau						+
Sagittaria subulata (L.) Buchenau var. gracillima (Wats.) J. G. Sm.				+	+	+
Sagittaria teres Wats.				+		

HYDROCHARITACEAE					
Elodea canadensis Michx.	−	+	+		+
Elodea Nuttallii (Planch.) St. John					+
Elodea occidentalis (Pursh) St. John	+	+	+	−	+
Elodea Planchonii Caspary			+		
Vallisneria americana Michx.	+	+	+	+	+

Sagittaria longirostra (Micheli) J. G. Sm. has been reported from Groton, Conn. (Gray's Man. ed. 7; Bull. Conn. State Geol. & Nat. Hist. Survey xiv. 45 (1910)). Mr. Bayard Long, however, who has made an intensive study of the group, regards the specimens on which these reports were based as representing only a broad-leaved form of *S. Engelmanniana*. *S. longirostra* is accordingly omitted here.

Typha latifolia, f. *ambigua* is a form in which all the technical characters of *T. latifolia*—ebracteolate pistillate flowers, flattened and dilated stigmas, etc.—are present, but the staminate and pistillate parts of the spike are separated and the whole plant is often more slender than is usual in the species. In these respects it simulates *T. angustifolia* and reports of that species from inland localities in non-calcareous regions have no doubt sometimes been based on specimens of it. Such reports should be regarded with suspicion unless substantiated by specimens.

Information in regard to other names used in the above list, but not in the 7th edition of Gray's Manual, may be found in the following papers: Blake, RHODORA, xv. 158 (*Sagittaria heterophylla*); Fernald, RHODORA xx. 108 (*Vallisneria*); St. John, RHODORA xxii. 17 (*Elodea*); Britton & Brown, Ill. Flora, ed. 2, i. 99 (*Sagittaria cuneata*); Fassett, RHODORA xxiv. 71 (*Lophotocarpus*); Wiegand & Eames, Mem. Cornell Univ. Agric. Exp. Sta. xcii. 53 (*Alisma*).

The groups here treated are composed wholly of aquatic or marsh species. This may partly account for the rather interrupted and eccentric distribution of some of them (if anything can be called eccentric in a matter so endlessly various as the ranges of plants) and the consequent comparatively large proportion which we have had to place in the miscellaneous section. As heretofore, forms which appear to have no significant ranges are not recognized in the geographic treatment, but are there included under the species with which they belong. Thus, the ranges of the forms of *Sagittaria latifolia* nearly coincide and are handled as a unit.

GENERALLY DISTRIBUTED.—*Typha latifolia; Sagittaria graminea, S. latifolia.*

NORTHERN.—*Sagittaria cuneata.*

S. cuneata occurs in southern New England only at a few stations in the Housatonic Valley in western Massachusetts and northwestern Connecticut, and along the Connecticut River in the north central part of the latter state. It is conspicuously absent from the whole area south of the White Mountains and east of the Connecticut Valley, and except for a single station in Washington Co., from the coastal portion of Maine. Its range suggests a calcicolous habit; but there are enough stations in localities of generally acid soils to make it seem, for the present, better placed in this group.

SOUTHEASTERN MASSACHUSETTS AND RATHER GENERAL ELSEWHERE BUT NOT IN NORTHERN MAINE.—*Vallisneria americana.*

This species has a single station on the outlet of Sourdnahunk Lake, Maine, at about the 46th parallel; it is not known from Washington Co., and we have seen no specimens from New Hampshire. It seems hardly possible, however, that it can occur all around that state, as it does, and not within it.

CHIEFLY THE THREE SOUTHERN STATES.—*Sagittaria subulata*, var. *gracillima; Alisma Plantago-aquatica*, var. *parviflorum.*

Sagittaria subulata, var. *gracillima* is endemic in New England, being known only from eastern Massachusetts, a single station in Rhode Island, and two in north central Connecticut.

Alisma Plantago-aquatica, var. *parviflorum*, common in most parts of the three southern states, is known to us northward only from the Winooski valley, the Connecticut valley near the confluences of the White and Ammonoosuc Rivers, and near the coast as far east as the Kennebec valley, with a single outlying station in the Penobscot valley. It is apparently rare in southeastern Massachusetts. Indeed, we have seen no specimens from that region; but there are reports of "Alisma Plantago" from near New Bedford by Hervey and from Nantucket by Bicknell, which in all probability refer to this variety.

COASTAL PLAIN.—*Sagittaria Engelmanniana, S. teres.*

S. teres is known in New England only from Barnstable and Plymouth counties, from a single station in Middlesex Co., Mas-

sachusetts, and from near Springfield, where it has recently been discovered by Rev. F. C. Seymour. *S. Engelmanniana* occurs, more frequently, in the same general regions and also about sand-plain ponds in Rhode Island and eastern Connecticut.

Calcicolous.—*Elodea canadensis.*

Except for two stations in northeastern Massachusetts—a region where other calcicolous species, for instance *Amelanchier spicata*, have been found—and one in a calcareous area near Rockland, Maine (C. A. E. Long, Rhodora xxiv. 181), this species is known only west of the Connecticut River.

Maritime.—*Typha angustifolia; Lophotocarpus calycinus*, var. *spongiosus; Sagittaria subulata.*

Although alike in being restricted wholly or mostly to the vicinity of the coast and in their generally southern ranges, the species here placed differ considerably in habitat and in the portions of the coast which they occupy. *Typha angustifolia* is a plant of brackish marshes or occasionally of alkaline situations inland; *Lophotocarpus* inhabits the tidal mud of estuaries; *Sagittaria subulata* is a denizen of muddy, but apparently not necessarily brackish, shores. It penetrates New England from the south only as far as the mouth of the Connecticut River. *Typha angustifolia* is uniformly distributed along the coast, reaching its extreme northern limit there at the estuary of the Penobscot. It is found inland in the Connecticut Valley in north central Connecticut, in the Housatonic Valley in Connecticut and Massachusetts, and at at least two stations in the Champlain Valley. It is even said to be occasional in marshes in Vermont (Vt. Agr. Exp. Sta. Bull. clxxxvii. 162 (1915)), but this statement is not borne out by the specimens and detailed records at hand. Probably, as suggested above, it is based in part on collections of *T. latifolia*, f. *ambigua.* The reports of *T. angustifolia* from Belchertown and Sandisfield, Mass. (Stone, Plants of Franklin, Hampshire, and Hampden Cos., Mass. 6 (1913); Hoffmann, Proc. Boston Soc. Nat. Hist. xxxvi. 204 (1922)) may perhaps be similarly explained.

Lophotocarpus calycinus, var. *spongiosus*, no doubt because of its preference for estuarine mud, has a broken distribution. It occurs on the estuary of the Kennebec and on certain creeks between it and the Penobscot; near the mouths of the Saco, Piscataqua, and Merri-

mac Rivers; about Massachusetts Bay; in the estuary of the Connecticut River; and at various stations from New Haven westward.

MISCELLANEOUS.—*Sagittaria heterophylla; Echinodorus tenellus; Elodea Nuttallii, E. occidentalis, E. Planchonii; Alisma Plantago-aquatica.*

Sagittaria heterophylla has a curiously disrupted range in New England. It occurs, in one form or another, on Nantucket; in the Connecticut and Housatonic Valleys in Connecticut; in the Housatonic and Merrimac Valleys in Massachusetts; at Manchester, N. H.; in the estuary of the Kennebec; at a single station near Hanover, N. H.; and at numerous stations in the Champlain Valley. It is reported also from the Connecticut Valley in Massachusetts (Stone, without locality) and from Norwich, Conn.

Of the leaf-forms, f. *rigida* is the commonest and apparently the normal form of the species. The typical form with auricled leaves occurs here and there; f. *elliptica,* so far as specimens seen show, only at Lowell, Mass. Both are luxuriant phases. *F. fluitans,* an adaptation to deeper water, occurs at several stations along Lake Champlain and, according to Hoffmann, in Berkshire Co., Mass.

Elodea occidentalis is frequent in Connecticut, and is known from northern Rhode Island, from Cape Cod, Plymouth, the region of Massachusetts Bay, and the Merrimac Valley in eastern Massachusetts, from the lower Androscoggin and Kennebec Valleys and Rangeley Lakes, Maine, and from Windsor, Vermont. The very problematical *E. Nuttallii* is known in our region only from Oxford, Conn.; *E. Planchonii* only from Wakefield and East Andover, Mass. Wiegand and Eames (Cornell Univ. Agr. Exp. Sta. Mem. xcii. 55) believe that this last is only the staminate plant of *E. canadensis.*

The reports of "*E. canadensis*" in Jackson's Flora of Worcester Co., Mass., and in Stone's Plants of Franklin, Hampshire, and Hampden Cos. probably refer to *E. occidentalis.* Reports in the older floras are, of course, non-committal as to which species was actually in hand. But the absence of any reference to *Elodea* in such floras as Hervey's of New Bedford, Pease's of Coös Co., New Hampshire, Hill's of the Penobscot Bay region and Rand and Redfield's of Mt. Desert, Maine, and Bicknell's of Nantucket is surely significant, and indicates that the distribution of *E. canadensis* and *E. occidentalis* as above given is essentially correct.

Echinodorus tenellus is known in our area only from Winchester and Cambridge, Mass.

Alisma Plantago-aquatica, so far as known to us, occurs in Maine south, or only a little north of the 45th parallel of latitude, in New Hampshire, Vermont and northeastern Massachusetts, but not elsewhere in our area.

C. A. Weatherby
C. H. Knowlton
R. C. Bean

Stipa spartea found in Pennsylvania.—On July 9, 1927, the writer found a small colony of *Stipa spartea* Trin. growing on a bank along the highway called the Lackawanna Trail, a short distance north of Dalton, Lackawanna County, Pennsylvania. The colony consisted of, perhaps, twelve or fifteen well developed and very robust tufts. The culms were from three to four feet tall and bore mature seeds. From all appearances this grass has been on that spot for several years and has become well established.

The Lackawanna trail in that region follows the old road-bed of the D. L. & W. railroad and, no doubt, the seeds of this plant have dropped from a passing freight train.

We were indeed very much astonished and thrilled to find this prairie species of grass in the State of Pennsylvania, from which, so far as we know, it has never before been reported.—E. M. Gress, State Botanist, Harrisburg, Penna.

A Plant new to Mt. Desert.—To the list of plants known from Mt. Desert Island may be added *Bidens frondosa* L., var. *anomala* Porter, which was collected by the writer at Bar Harbor, Maine, on August 5, 1927. It grew in the habitat usually preferred by this variety, on a cobblestone beach, a short distance above high tide level. The plant is rather common not a quarter of a mile from the steamboat landing, just below the sea-wall followed by the "Shore Walk."—N. C. Fassett, Madison, Wisconsin.

Vol. 29, no. 347, including pages 225 to 240, was issued 21 November, 1927.